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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,906	12/16/2003	Byung-Seok Soh	Q77082	3892

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EXAMINER
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APANIUS, MICHAEL

ART UNIT	PAPER NUMBER
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3736

MAIL DATE	DELIVERY MODE
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01/31/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/735,906

Applicant(s)

SOH ET AL.

Examiner

Michael Apanius

Art Unit

3736

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 October 2007 and 21 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5,7-13 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-13 and 15-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. The addition of new claims 21 and 22, the amendments to the specification and the replacement drawing sheets are acknowledged.

### *Drawings*

2. The drawings are objected to because replacement drawing sheets 2-6 do not includes all of the figures appearing on the prior versions of the drawing sheets. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 11-13 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukumoto et al. (US 6,380,923) in view of Mori (US 2003/0181817).

5. Fukumoto discloses an apparatus and method for detecting finger-motion in a wireless manner comprising:

a finger-motion detecting unit (R11-R15 in figure 1), which is configured to be attached to a user's finger, is operated using a battery (column 5, lines 39-42) and is configured in the form of a switch (column 5, lines 42-48), and is adapted to generate a finger-motion signal when the switch is turned on;

a finger-motion signal transmitting unit (the radio wave equivalent to LD1-LD5 in figure 2; see column 10, lines 31-34), which is operated using the battery, receives the finger-motion signal provided from the finger-motion detecting unit, modulates the finger-motion signal to have information on which finger is moved (column 6, lines 20-25), and transmits (the radio wave equivalent to the "LIGHT" in figure 2; see column 10, lines 31-34) the modulated finger-motion signal in a wireless manner; and

a finger-motion signal receiving unit (WT1), which receives and reads the modulated finger-motion signal provided from the finger-motion signal transmitting unit to determine which finger is moved,

wherein the finger-motion signal transmitting unit and the finger-motion signal receiving unit are configured to be attached to the user's hand (see figure 1).

6. The method steps of claim 11 are similarly met as noted above. However, Fukumoto does not expressly disclose a wireless power signal as set forth in claims 1 and 11 or step (a) as set forth in claim 11.

7. Mori teaches using a wireless power signal to power a sensor device for the purpose of eliminating the need for battery or a cable and the space requirements associated therewith (paragraph 32, lines 11-14). In particular, Mori teaches outputting a wireless power signal from a receiving unit (20A in figure 4A) and operating a detecting unit and transmitting unit (10A) with the wireless power signal. Mori further teaches converting a predetermined wireless power signal into a predetermined amount of power (paragraph 81).

8. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to have used a wireless power signal as taught by Mori in the apparatus and method of Fukumoto in order to achieve the predictable result of providing power to the detecting unit and transmitting without the need for a battery or cable and the associated space requirements.

9. In regards to claim 2, Mori further teaches a coil unit (at least 12A) which generates a predetermined amount of power and outputs data to a receiving unit.

Fukumoto discloses a control unit (see RI1-RI5 in figure 2) that temporarily stores a finger-motion signal inputted from the finger-motion detecting unit, and converts the finger motion signal into the modulated finger motion signal.

10. In regards to claims 3 and 12, Mori teaches converting an alternating current power generated by the coil unit into a direct current power to generate the predetermined amount of power (paragraph 81).

11. In regards to claims 4 and 13, Fukumoto discloses that each finger-motion signal has a predetermined frequency depending on which finger is moved (column 6, lines 20-25).

12. In regards to claim 5, Mori teaches a coil unit that is configured to be wound about a finger and a control unit (11A) that is configured to be positioned on top of the finger in the form of a chip.

13. In regards to claims 19-22, Mori teaches an IC chip (11A) that can be considered a radio frequency identification chip. The IC chip stores (115 in figure 6) a signal and modulates (1161 in figure 6) the signal into a radio frequency signal.

14. Claims 7-10 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukumoto et al. (US 6,380,923) as modified by Mori (US 2003/0181817), as applied to claims 1-5, 11-13 and 19-22 above, and further in view of Grimes (US 4,414,537). Fukumoto as modified by Mori does not expressly disclose the various switch configurations set forth in claims 7-10 and 15-18. Grimes teaches switches that are configured to be mounted on a predetermined joint of the user's finger,

the end of the user's finger and between adjacent fingers such that the switch is activated by the user flexing a joint, tapping, and/or contacting with another finger and/or thumb (paragraph bridging columns 1 and 2). The configuration of switches of Grimes is easy to use (column 2, lines 44-49) and is efficient for data generation (column 2, lines 39-43). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to have used switches mounted on a finger joint, end or side as taught by Grimes in the apparatus and method of Fukumoto as modified by Mori in order to allow easy and efficient data generation.

### ***Response to Arguments***

15. Applicant's arguments with respect to the previous prior art rejections have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Apanius whose telephone number is (571) 272-5537. The examiner can normally be reached on Mon-Fri 8am-4:30pm.


17. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MA

  
Brian Samuel  
AJ 3736